PSYCHOLOGICAL STRESS EVALUATOR

A Study

by
Michael P. Kradz
Howard County Police Department
Ellicott City, Maryland
1972

Abstract:

The aim of this study was to investigate the validity of the Dektor Psychological Stress Evaluator as instrumentation for the lie detection system within the parameters of law enforcement. Reliability of chart interpretation criteria was also tested. To produce a real-world high stress situation, 43 criminal suspects were administered lie detection examinations which were instrumented simultaneously with a polygraph and a Dektor Psychological Stress Evaluator. The test of validity was provided by a comparison of the examiner's conclusions with the findings of corrollary law enforcement investigative techniques. This was available for all but seven suspects, who were among those cleared of suspicion, and for whom no evidence to the contrary was uncovered. Using the PSE as instrumentation, 100% accuracy was produced in those 36 subject examinations for which complete and concrete corroboration was, or later became, available. The polygraph, in the same examination, produced two cases of "untestable subjects" and two cases of "inconclusive results". Comparison with the conclusions of a second, independent examiner produced a reliability statistic of 100% for the PSE and 93% for the polygraph. It was concluded that the Dektor PSE is a valid instrumentation for use in the lie detection application.